

11-12-98

FACT SHEET

PROPOSED ACTION ON PUBLICLY OWNED TREATMENT WORKS

TODAY'S ACTION

- The Environmental Protection Agency is proposing to regulate organic hazardous air pollutants emitted from wastewater treatment units at new or reconstructed publicly owned treatment works (POTW) that are major sources. Major source means stationary sources at the POTW emit or have the potential to emit a single hazardous air pollutant (HAP) of concern at a rate of 10 or more tons per year or any combination of HAP of concern at a rate of 25 or more tons per year. At the same time, EPA is proposing not to require any additional controls on wastewater treatment units at existing POTW. POTW are used to process waste from households, businesses, and industries, and are generally owned and operated by cities or counties.
- EPA reached this proposed decision after investigating various options for controlling hazardous air pollutant emissions at currently operating POTW.
- Based on its analysis, EPA is requiring that new or reconstructed sources install covers on all wastewater treatment processes up to, but not including the secondary influent pumping station. In addition, all covered units, except primary clarifiers, must have the air in the headspace ducted to an air pollution control device.
- With respect to existing facilities, due to the lack of technology surrounding the control of hazardous air pollutant emissions from POTW, EPA has decided not to regulate wastewater treatment units at existing facilities, at this time.
- This notice requests comment on potential emission sources other than wastewater treatment units at POTW, including collection and transport systems. This notice also requests comment on the use of pretreatment to reduce hazardous air pollutant emissions from POTW.
- EPA worked with state and local governments as well as the Association of Metropolitan Sewerage Agencies in developing the analysis to support its proposed decision.

BACKGROUND

- A POTW collects, transmits, and treats industrial, commercial, and residential wastewater. Processes and operations at POTW cause emissions to the air of certain hazardous air pollutants contained in the wastewater.
- Hazardous air pollutants, or air toxics, are known or suspected to cause cancer or other serious health effects such as birth defects or developmental defects. The hazardous air

pollutants emitted from POTW vary from facility to facility but may include xylenes, methylene chloride, toluene, ethyl benzene, chloroform, tetrachloroethylene, benzene, and naphthalene.

- EPA has identified six POTW nationwide that are major sources of hazardous air pollutant emissions from their wastewater treatment units. Under the Clean Air Act, “major sources” are facilities that have the potential to emit 10 tons per year or more of a listed hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants.
- In developing these proposed standards, EPA established two source “subcategories”: (1) the industrial publicly owned wastewater treatment subcategory, which comprises the wastewater treatment portion of POTW used by industry to treat their specific industrial waste streams to meet other regulations under the Clean Air Act (e.g., benzene waste operations NESHAP, hazardous organic NESHAP), and (2) the non-industrial publicly owned wastewater treatment subcategory, which comprises the wastewater treatment portion of all other POTW that are major sources.

WHY DID EPA CONSIDER REGULATING AIR EMISSIONS FROM POTW?

- Initially, EPA considered controlling air emissions from these facilities, because the Agency believed that certain POTW are a major source of hazardous air pollutant emissions. Typical hazardous air pollutants that may be emitted from a facility include xylenes, methylene chloride, toluene, ethyl benzene, chloroform, tetrachloroethylene, benzene, and naphthalene. There are a number of potential adverse health impacts associated with exposure to these pollutants. For example, exposure to methylene chloride adversely affects the central nervous system and results in increased liver and lung cancer in animals, and benzene is a known human carcinogen. Consequently, EPA included POTW on its required list of industrial categories of concern.

WHY IS EPA NOT PROPOSING CONTROLS FOR THE WASTEWATER TREATMENT PROCESSES AT EXISTING NON-INDUSTRIAL POTW?

- Based on the absence of emission controls on existing wastewater treatment processes at major POTW, EPA has decided not to require controls on these processes.

WHY IS EPA NOT PROPOSING CONTROLS FOR THE WASTEWATER TREATMENT PROCESSES AT EXISTING INDUSTRIAL POTW?

- By definition, the “industrial” POTW in this subcategory are defined and regulated under another section of the Clean Air Act. Therefore, any control requirements for industrial POTW will be specified in another regulatory action.

WHY IS EPA PROPOSING CONTROLS FOR THE WASTEWATER TREATMENT PROCESSES AT NEW OR RECONSTRUCTED INDUSTRIAL POTW?

- For the industrial publicly owned wastewater treatment facilities subcategory, control requirements for new sources are set by the emission controls at the best performing sources in the non-industrial publicly owned wastewater treatment facilities subcategory. Therefore, new or reconstructed sources in the industrial subcategory must meet the control requirements for the non-industrial subcategory, or the emission controls imposed by the appropriate industrial NESHAP, whichever is more stringent.

WHAT IS PRETREATMENT?

- There are a variety of wastewater streams that flow into POTW. Industrial and commercial facilities can use wastewater treatment devices to remove pollutants from their wastewater streams prior to discharge to the sewer system. This process is known as pretreatment and is a form of pollution prevention. Pretreatment processes that remove volatile hazardous air pollutants will reduce hazardous air pollutant emissions.
- EPA recognizes that pretreatment could be a very effective means for reducing hazardous air pollutant emissions from the entire POTW (i.e., collection and treatment of wastewater). However, additional information is needed from facilities with pretreatment programs, particularly POTW which have used pretreatment to reduce discharges of volatile organic compounds. Therefore, EPA is seeking public comment on the pretreatment process.

NEXT STEPS

- In this action, EPA is proposing to regulate hazardous air pollutants emitted from new or reconstructed publicly owned wastewater treatment facilities. The public will have the opportunity to comment on the proposed regulation, and EPA will respond to all public comments prior to promulgating the regulation.
- In this action EPA also is requesting further information on controlling hazardous air pollutant emissions from wastewater conveyance systems and on the use of pretreatment to reduce emissions.
- EPA intends to provide the information gained from studying hazardous air pollutant emissions from POTW (e.g., emissions estimation models, emissions control techniques) as guidance on reducing hazardous air pollutant emissions from POTW. Additionally, EPA may use this information in future action to reduce hazardous air pollutant emissions through pretreatment.
- EPA plans to promulgate this standard by May 1999.

FOR FURTHER INFORMATION

- Once the rule has been signed by the Administrator, interested parties will be able to download the rule from EPA's web site on the Internet under recently signed rules at the following address: (<http://www.epa.gov/ttn/oarpg/rules.html>). For further information about this proposal, call Bob Lucas of EPA's Office of Air Quality Planning and Standards (919) 541-0884.
- EPA's Office of Air and Radiation's home page on the Internet contains a wide range of information on the air pollution programs including air toxics issues. The Office of Air and Radiation's home page address is: (<http://www.epa.gov/oar/>).